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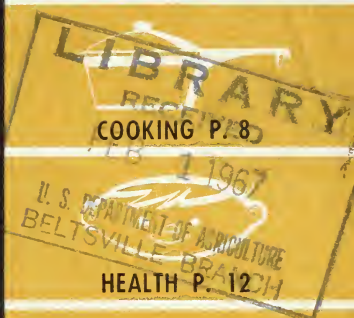
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A Consumer's Guide to USDA Services

U.S. DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C.



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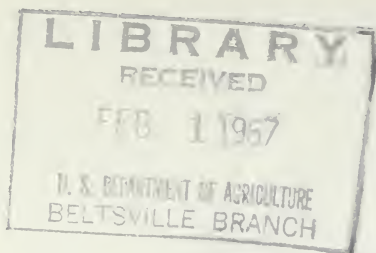
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FOREWORD

USDA—the U.S. Department of Agriculture—is YOUR Department. It serves you in many ways.

Most important, it works with farmers and others to assure you of a plentiful supply of food, fiber, and wood at reasonable cost—and to conserve our soil, water, forests, and the wildlife that depend on them.

But much of the Department's work serves you directly every day. These services are yours to use—to help you shop, plan your meals, improve your diet, plant your garden, tend your lawn, enjoy your vacation.

USDA wants you to know about them and to use them.

The Act of Congress establishing the Department of Agriculture in 1862 said that this Department was "to acquire and to diffuse among the people of the United States useful information on subjects connected with agriculture in the most general and comprehensive sense of that word"

In following out that and other responsibilities given by the Congress, the Department carries out basic and applied research in many fields and makes results available to the public.

More than 100 bulletins currently available were published especially for consumers.

Offered here is a sampling of some of this information. It will give you an idea of the services that USDA performs directly for you—the consumer—and the wealth of knowledge developed within the Department over the past 100 years that is available to you.

Miscellaneous Publications No. 959

A CONSUMER'S GUIDE TO USDA SERVICES

World authorities in nutrition, textiles, horticulture, entomology, soils, water, seeds, economics, and many other fields are among the employees of the U.S. Department of Agriculture (USDA).

Their knowledge is drawn upon to prepare dictionaries, encyclopedias, magazine and newspaper articles, and countless textbooks. Few people realize that the source of much of the knowledge in many fields is USDA—and that this same source is available to them—to any of the 190 million citizens of this country.

If you have any question regarding (1) soil, water, domestic animals, fruits, vegetables, flowers, trees, shrubs, (2) foods, their preparation, care, preservation, how to buy them, (3) nutrition, (4) planning kitchens or houses, (5) making or mending clothes, repairing carpets, (6) laundering, removing stains, or (7) controlling insects—you can get a bulletin covering the subject (in most cases free of charge) or a personal answer to a specific question simply by writing a post card to the U.S. Department of Agriculture, Washington, D.C., 20250.

Often you can get the same bulletins—and in addition, bulletins and advice tailored to your local area—from your county agricultural agent or home demonstration agent. These Extension Service workers, representing both USDA and the State land-grant university or college, are in almost every county of the Nation. They are there to serve you.

To locate any USDA office, look in the telephone directory under the listing for U.S. Government. County agricultural and home agents are usually headquartered at the county seat, with offices in the courthouse or post office. Because they are county employees (representing also State and Federal Governments), they usually are listed in telephone directories under the county government heading.

For a comprehensive description of all USDA programs, and how they work to your benefit, see the publication, "You and the USDA" (PA-542). You may obtain a free copy by ordering according to the instructions following.

How To Order Bulletins

USDA will send free up to 10 different publications in response to any one request.

In requesting bulletins from USDA, please order by number, not name of publication. For example, to obtain the publication "Removing Stains from Fabrics," order it by its G number (G-62) rather than by its title. This speeds up service to you. Group the L numbers, G numbers, etc., and list them numerically within these groups. For instance: G-1, G-10, G-30; L-307, L-424.

Send request (post card means faster service) to Office of Information, U.S. Department of Agriculture, Washington, D.C., 20250.

If USDA's free supply of a particular bulletin becomes exhausted because of demand, you will be referred for that publication to the Superintendent of Documents, U.S. Government Printing Office. Bulletins listed here as FOR SALE ONLY must be obtained from that source.

You also can buy any of the other bulletins listed, unless they are marked FROM USDA ONLY or another source is given. Prices are listed for your convenience. *USDA does not sell bulletins.* All purchases must be made from the Superintendent of Documents.

If you buy 100 or more copies of *one* publication, you are entitled to a 25 percent discount.

To make purchases from the Superintendent of Documents, give the full title of the publication along with the number, and send with check or money order (no stamps) to: Superintendent of Documents, Government Printing Office, Washington, D.C., 20402.

FOOD SHOPPING



U.S. Grades—Guide to Quality

U.S. grades on food mean the same thing in all parts of the country, in any season, in any store, day in and day out. These grades are based on nationally uniform Federal standards. Their use is supervised by well-trained Government graders. They offer you a reliable guide to quality and a means to compare quality with price.

You won't find U.S. grades on all foods, since their use is voluntary. Processors or packers who want their product to carry the shield-shaped USDA grademark must contract and pay for official grading services.

There are several grades for each food product, but here are the ones most commonly seen. For more information, see "Shopper's Guide to U.S. Grades for Food" (G-58), "U.S. Grades for Beef" (MB-15).

Meat

This mark on the outer fat covering identifies meat that has been graded. It means that the quality of the meat has been judged by an expert and impartial Federal grader. Beef and lamb are the meats most commonly graded. Calf and veal are graded, too, but in smaller amounts. This grade (Choice) is the one preferred by most consumers; in general it denotes a high degree of tenderness, juiciness, and flavor. But the proper selection of cuts is important, too, especially for beef. In the Choice grade, these beef cuts may be cooked satisfactorily by dry heat (broiling or roasting): porterhouse, T-bone, club, sirloin, and rib steaks, rib and rump roasts, blade chucks.



Poultry

This grademark may be found on the package or wing tag on fresh or frozen poultry—chickens, turkeys, ducks, geese, guineas. Poultry of lower grades seldom is identified with a grademark. *Class* of poultry is important,



too; look for word *young* (or broiler, fryer) if you want to broil or roast the bird. Grade A birds will have a better meat yield and appearance than those of lower grades.

Eggs



For eggs, the grademark appears printed on the carton or on a sealing tape. Higher grades (U.S. Grade AA and A) are best for poaching and frying. The size of egg is also designated (Extra Large, Large, Medium, Small); but size has no bearing on quality. Small eggs sometimes are an especially good buy.

Processed Fruits and Vegetables (and Related Products)



This grademark identifies quality when used on containers of frozen, canned, or dried fruits and vegetables, and a few other products, such as peanut butter, jelly, jam. It also means strict sanitation control in the processing plant. Relatively few packers are presently so identifying quality for consumers; exception: frozen orange juice—about 20 percent of the pack carries the grademark. In general, Grade A is a desirable product for table use. Lower grades are suited for cooking purposes, stews, casseroles, puddings; they may consist of irregular pieces, be less tender than Grade A.

Fresh Fruits and Vegetables



The U.S. grade name on a package of fresh fruits or vegetables means the produce meets certain standards for color, size, shape, and freedom from defects. If the grade name is enclosed in the official shield, as shown here, the produce has been packed under continuous USDA Inspection—which means both quality control and plant sanitation have been strictly supervised. The typical range of grades for a commodity includes: U.S. Fancy, U.S. No. 1, U.S. No. 2. The U.S. Grades A, B, and C are designed for use on a few selected fresh products, but are not widely employed at present.

Butter, Cheddar Cheese



Graded butter is available in most markets. Grades AA and A will have a highly pleasing, sweet flavor. At present, only a small amount of cheese is being graded for the consumer. Grade on cheese designates desirable and consistent flavor, body, texture, that are appropriate for type (sharp, mellow, mild). Also available from USDA, but used by only a few manufacturers, are

consumer grades for nonfat dry milk and a "Quality Approved" rating for cottage cheese, process cheese, sour cream, and buttermilk.

Inspection—Consumer Protection

All meat and poultry products sold interstate or in foreign trade must pass Federal inspection. This is required by law. Only good, clean, wholesome meat and poultry can pass inspection. Inspection is financed by the Federal Government. It costs each of us about 15 cents a year for the inspection of meat and poultry we buy.

Fresh and Cured Meat

This is the Federal inspection mark used on meat. You are more likely to see it on the larger cuts of meat—such as standing rib roasts, leg of lamb, or ham—than on smaller meat cuts. This stamp is your assurance that the meat came from a healthy animal and from a packing plant that was under continuous supervision. Don't confuse this with the shield-shaped mark denoting the quality grade. Not all inspected meat is graded; but inspection by the Federal or some other approved system is required if the meat is to be graded.



Processed Meat Products

This mark is used on processed meat products—canned, packaged, or frozen—that are prepared under Federal inspection. Strict sanitation, wholesome contents, truthful labeling, and compliance with stated formulas are required. Weights, if shown, must be accurate.



Fresh, Frozen, and Processed Poultry and Poultry Products

Fresh, frozen, or processed poultry products bear this mark when prepared under Federal inspection. As with meat, you are assured of wholesomeness, sanitation, and truthful labeling when poultry and poultry products are so identified. Inspection is required if the product is to be graded.



Processed Fruits, Vegetables, and Related Products (Such as Jams, Jellies)

Foods other than meat and poultry may be prepared under voluntary "continuous inspection" programs of USDA, which assure clean and wholesome food of acceptable quality. Under these programs an official inspector or grader, stationed in the processing plant, checks on all



stages of processing from the time the product comes into the plant until it is shipped out. You can be sure of the *exact* quality if the product also bears the grademark; and this is not permitted on any product unless it is prepared under strict sanitation control.

Tips on Buying Foods



Read the label.—Ingredients, when shown, are listed in order of quantity. Packing mediums differ—fish may be packed in oil or water; fruits may be in heavy, medium, or light syrups. Large sizes often—not always—cost less per ounce. Natural cheese and process cheese may look alike; labels will identify which is which.

Compare prices of fresh, frozen, canned, and packaged foods.—You will see which ones give the most servings for the least money. Some convenience foods are cheaper to use than less highly processed ones, though you usually have to pay more for the "maid-service" done for you. Biggest bargain in convenience foods is frozen orange juice concentrate—only about half the cost per serving of juice when prepared at home from fresh oranges.

Watch for products in plentiful supply.—USDA informs the public periodically, through newspapers, radio, and television, of products in greatest supply. These are often offered at attractive prices. Also, you should consider buying fruits and vegetables that are in season in nearby production areas. Quality and price may both be advantageous.

Learn to judge quality of fresh fruits and vegetables.—Experience is the best teacher—but USDA's "Tips on Selecting Fruits and Vegetables" (MB-13) provides practical guidance. It covers the whole range of produce available to today's shopper. For example:

- *Cabbage and head lettuce.* Choose heads that are heavy for their size. Avoid those with outer discoloration; it may indicate extensive waste inside.
- *Melons.* Most varieties of cantaloups are best if netting is thick and close. Ripeness is indicated by a smooth (not gouged) stem scar, color changing to yellowish buff or gray, and a characteristic fruity odor.

Honeydews are ripe when the rind has creamy to yellowish color, and the blossom end has softened slightly. Immature honeydews are whitish green, but they keep well and may be held for ripening at ordinary room temperatures.

Watermelon ripeness can be judged only by looking at the inside. When buying cut melon, look for good red color, dark brown or black seeds, and firm, succulent flesh. Avoid dry, mealy flesh or watery, stringy flesh showing darkening and softening of tissues next to seeds.

- *Oranges, grapefruit, and lemons.* Choose those that are heavy for their size. Smoother, thinner skins usually indicate more juice. Most skin markings do not affect quality. Avoid citrus fruits showing withered, sunken, or soft areas.



More Information

CHEESE BUYING GUIDE FOR CONSUMERS. Uses, flavor, texture, and care of cheese; characteristics of various natural cheese; what to look for when buying. 1961. (MB-17) 10¢.

FAMILY FARE: FOOD MANAGEMENT AND RECIPES. Also includes tips on buying. 1960. (G-1) 35¢.

FAMILY FOOD BUDGETING . . . FOR GOOD MEALS AND GOOD NUTRITION. 1964. (G-94) 10¢.

FRESH FANCY OR GRADE AA EGGS. Describes and illustrates. 1963. (MB-26) 5¢.

HOW TO BUY EGGS BY USDA GRADES AND WEIGHT CLASSES. Tips on buying, storing, using. 1958. (L-442) 5¢.

HOW TO BUY POULTRY BY USDA GRADES. Explains grades, classes, uses. 1963. (MB-1) 5¢.

KNOW THE EGGS YOU BUY. Illustrates and describes how to know quality. 1956. (PA-70) 10¢.

KNOW THE POULTRY YOU BUY. A guide to buying quality poultry. 1963. (PA-170) 10¢.

KNOW YOUR BUTTER GRADES. Tips on buying, storing. 1960. (MB-12) 5¢.

SHOPPER'S GUIDE TO U.S. GRADES FOR FOOD. Meaning of grades, suggested uses. 1962. (G-58) 10¢.

TIPS ON SELECTING FRUITS AND VEGETABLES. 1961. (MB-13) 20¢.

USDA POULTRY INSPECTION: A CONSUMER'S SAFEGUARD. Meaning of inspection, how it's done. 1959. (PA-299) 5¢.

U.S. GRADES FOR BEEF. Facts on grades, cuts, suggested cooking methods, amounts to buy. 1960. (MB-15) 10¢.



COOKING

Meal Planning—Basic Foods

You can easily plan and cook meals that will assure your family a nutritionally adequate diet.

By following the "Daily Food Guide" (illustrated in the margins of these two facing pages) and planning meals around the basic four groupings—plus other foods as needed to complete meals and to provide additional food energy and other food values—you can be sure of meeting the normal dietary needs of any healthy person.

Food *can* lose many of its nutrients and much of its flavor, texture, and color if it is not cooked properly. But proper cooking is not difficult. Many foods come with excellent directions on the package. And modern food-processing methods either preserve nutritional values or restore them to foods. The great variety of the American food supply is in itself a protection against deficiencies in diet.

For help with cooking, you can use recipes with detailed instructions. The USDA bulletin "Family Fare . . . Food Management and Recipes" (G-1), presents the basic principles of food preparation for best results in eating quality and nutritive value. Recipes in this book were developed in USDA food research laboratories.

This bulletin also contains much sound advice on nutrition, planning meals, and buying and storing foods. In addition, it suggests variations for some of the recipes and appropriate menus to go with them.

USDA offers a number of recipe booklets which are listed at the end of this section. All were prepared by expert home economists and nutritionists. In addition, they have published a book of quantity recipes "Recipes for Quantity Service" (HERR-5), available at \$2.50 per copy from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402, that is useful if you want to prepare church suppers or feed some other large group. Simply increasing the quantities in a

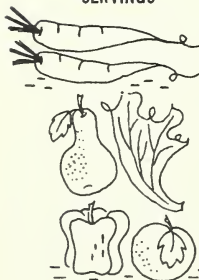
MEAT GROUP

2 OR MORE
SERVINGS



VEGETABLE FRUIT GROUP

4 OR MORE
SERVINGS



recipe designed to feed 4 to 8 is not generally advisable when preparing food for 25 or more people.

Up-to-date instructions on canning and freezing foods are also available from USDA.

Tips on Cooking, Preserving Nutrients

The three R's of cooking to conserve nutrients in vegetables are: Reduce the amount of water used; reduce cooking time; reduce the amount of surface area exposed.

How much water you use in cooking vegetables is most important. Use no more than is necessary. Use any remaining cooking liquid with the vegetable or for sauce or gravy.

Most frozen meats may be thawed before cooking, or not, as desired, with equally good results. Large frozen roasts may take as much as $1\frac{1}{2}$ times as long to cook as unfrozen cuts of the same weight and shape.

Pork should always be cooked thoroughly to avoid the danger of trichinosis. Beef cooked to the rare stage (140° F.) will shrink less and be juicier than if cooked to the well-done stage.

To get the full nutritive value from any meat, use the drippings or broth in gravies and sauces.

The foremost rule for cooking eggs to insure best eating quality is to use low to moderate temperatures and avoid overcooking. If too high a temperature is used or if cooking is continued too long, the protein in the egg shrinks, making the white tough and the yolk mealy.

Cereals and rice should be cooked in no more water than will be absorbed in the cooking. To retain maximum food value, they should not be drained or rinsed. Nor is washing rice before cooking desirable—or necessary.

Care of Foods

Fresh perishable foods should be used soon after purchase, and stored at the right temperature and humidity. Otherwise, they quickly lose quality and may spoil.

Some kinds of spoilage make foods harmful, some do not; and it is not always possible to distinguish between the two kinds.



MILK GROUP

SOME MILK
EVERY DAY
FOR CALCIUM

TEENAGERS—4 or More Cups
ADULTS—2 or More Cups



BREAD CEREAL GROUP

4 OR MORE
SERVINGS



Indications of spoilage that make food unpalatable but without danger to health are the rancid odor and flavor of fats caused by oxidation, slime on the surface of meat, the fermentation of fruit juices due to yeast growth, and mold on bread. (However, some people are allergic to mold—it's hazardous to *them*.)

Among the signals that indicate *dangerous* bacterial spoilage are off-odors in foods and a sour taste in bland foods.

Your refrigerator should maintain a temperature no higher than 42° F.—preferably lower—in the general storage area. For detailed directions on storage, see "Storing Perishable Foods in the Home" (G-78).

The freezing compartments of most home refrigerators are suitable for keeping frozen foods only a few days. For longer storage a temperature of 0° F. or lower is needed—and this is available only in a freezer or in the freezer cabinet of a combination refrigerator-freezer. At freezing temperatures above 0° F. chemical changes cause foods to lose color, flavor, characteristic texture, and nutritive value, even though they are safe to eat.

But even at 0° F. and below, frozen foods will not maintain their quality indefinitely. "Home Care of Purchased Frozen Foods" (G-69) gives tables of recommended maximum home storage periods. For no frozen food is storage of more than a year recommended; for some, no longer than a month or two. Longer storage at 0° F. or below will not make food unfit for use—but quality may deteriorate.

You may safely refreeze foods that have thawed only partially—if *there are still ice crystals in the package*. But this will reduce quality, and they should be used as soon as possible thereafter. If frozen foods have thawed slowly and have warmed gradually over a period of several days to a temperature of 40° F., they are not likely to be fit for refreezing and they may be unsafe to eat, especially meats, poultry, most vegetables, and some prepared foods.

More Information

APPLES IN APPEALING WAYS. Varieties, uses, recipes. 1959. (L-312) 10¢.

CONSERVING THE NUTRITIVE VALUES IN FOODS. Effects of storage, cooking. Tips on best procedures. 1963. (G-90) 10¢.

DRY BEANS, PEAS, LENTILS . . . MODERN COOKERY. Kinds, how to cook, recipes. 1957. (L-326) 15¢.

- *FAMILY FARE: FOOD MANAGEMENT AND RECIPES. Good basic cookbook. 1960. (G-1) 35¢.
- *FAMILY FOOD BUDGETING . . . FOR GOOD MEALS AND GOOD NUTRITION. 1964. (G-94) 10¢.
- *FAMILY MEALS AT LOW COST. Includes recipes using donated foods—dried eggs, lard, rice, rolled oats, wheat, etc. 1962. (PA-472) 10¢.
- *FOOD FOR FAMILIES WITH SCHOOL CHILDREN. Meal planning, shopping, menus. 1962. (G-13) 15¢.
- *FOOD FOR THE FAMILY WITH YOUNG CHILDREN. Food planning, reducing food bill. 1963. (G-5) 10¢.
- *FOOD FOR FITNESS. A daily food guide. Basic information. 1963. (L-424) 5¢.
- *FOOD GUIDE FOR OLDER FOLKS. Meal planning, cooking tips. 1963. (G-17) 10¢.
- *FOOD FOR THE YOUNG COUPLE. Menus, meal planning, food buying. 1962. (G-85) 10¢.
- FREEZING COMBINATION MAIN DISHES. Directions for stews, meat loaves, casseroles, etc. 1954. (G-40) 10¢.
- FREEZING MEAT AND FISH IN THE HOME. Yields of meat from carcass. Cutting directions. Cleaning, dressing, filleting fish. Directions for wrapping, freezing, storage. 1963. (G-93) 20¢.
- GREEN VEGETABLES FOR GOOD EATING. Buying, storing, cooking. 1954. (G-41) 10¢.
- HOME CANNING OF FRUITS AND VEGETABLES. Procedures; steam-pressure canner and water-bath methods. 1957. (G-8) 20¢.
- HOME CANNING OF MEAT. Directions for meats and some meat-and-vegetable mixtures; proper canning equipment; timetable for hot pack and raw pack methods. 1963. (G-6) 10¢.
- HOME CARE OF PURCHASED FROZEN FOODS. Table of storage periods; tips on purchasing; care of freezer. 1960. (G-69) 5¢.
- HOME FREEZING OF FRUITS AND VEGETABLES. Directions; what to freeze, type of containers to use. 1957. (G-10) 20¢.
- HOME FREEZING OF POULTRY. How to do it; also recipes and directions for freezing cooked-poultry dishes. 1960. (G-70) 15¢.
- HOW TO MAKE JELLIES, JAMS, AND PRESERVES AT HOME. Directions; reasons for unsatisfactory results. 1957. (G-56) 15¢.
- MEAT FOR THRIFTY MEALS. Selecting and cooking cheaper cuts of beef, pork, lamb, and veal. Using leftovers, canned meat. 1953. (G-27) 20¢.
- POTATOES IN POPULAR WAYS. Buying, storing, cooking, recipes. 1957. (G-55) 15¢.
- PEANUT AND PEANUT BUTTER RECIPES. 1954. (G-36) 10¢.
- RECIPES FOR QUANTITY SERVICE. Directions for quantities for 25, 50, or 100 portions. 1958. (HERR-5) *FOR SALE ONLY*. \$2.50.
- STORING PERISHABLE FOODS IN THE HOME. Directions for different kinds of foods; refrigerator temperatures. 1961. (G-78) 10¢.
- SWEETPOTATO RECIPES. Storing, cooking, recipes. 1946. (L-293) 10¢.
- TOMATOES ON YOUR TABLE. Ripening, cooking, recipes, marmalade, preserves. 1961. (L-278) 10¢.
- TURKEY ON THE TABLE THE YEAR ROUND. Buying, preparing, cooking, recipes, leftovers. 1961. (G-45) 15¢.
- WHAT TO DO WHEN YOUR HOME FREEZER STOPS. Steps to keep food from spoiling. 1957. (L-321) 5¢.

*These bulletins also provide nutrition guides.



HEALTH

Nutrition

Modern knowledge of food and nutrition brings a new mastery over life. The right food helps keep you at your best in health and vitality. It can even help you to stay young longer.

USDA nutritionists, who are among the leaders in this field, publish many guides to good nutrition—including the "Food for Fitness—A Daily Food Guide" (L-424), illustrated in the drawings on pages 8 and 9.

This simple guide summarizes a great deal of research and knowledge. It translates scientific facts about nutrition into everyday terms.

You can also get other bulletins, listed at the end of this section, which go into more detail on nutrition and on diet.

But the suggested food guide provides you with the basic knowledge you need. You need these same foods—in varying amounts—whether you are young or old, active or sedentary, a man or a woman; and whether you are trying to lose, to gain, or to maintain your present weight. Men, of course, generally need more of most foods than women; boys of 16 to 19 have the highest requirements of all.

Surveys show that many Americans don't get enough calcium and vitamins A and C. More milk and milk products, and fruits and vegetables (particularly dark-green and deep-yellow vegetables and citrus fruits), as suggested in the food guide, would go a long way toward overcoming these shortages—and ills that may be associated with them.

We have not yet learned all there is to know about nutrition—even though the science has come a long way in the past 30 years. There are probably factors in food still unidentified, and for that reason it is wise to eat a wide variety of foods from the basic groups. If you do this routinely, you can be sure of getting all the nutrients you need. You will not need the so-called health foods or vitamin pills, unless prescribed by a physician.

Diets

In spite of all our knowledge about nutrition, overweight is still the chief nutritional problem plaguing us. In the main, the cause is simply eating too much. But eating the wrong kinds of foods enters into the picture, too.

Here are some USDA recommendations:

- Eat three well-balanced meals a day—including foods from each of the four basic groups.
- Include some top-grade protein food in each meal.
- Either eliminate snacks between meals or “borrow” some food from one of your regular meals to eat in-between—a glass of milk or a piece of fruit, for example.
- Avoid high-calorie foods like the fat on meat, cooking fat, salad oil, fried foods, gravies and rich sauces, nuts, pastries, cakes, cookies, rich desserts, candies, jellies, jams, and alcoholic and sugar-sweetened beverages.
- Take advantage of daily opportunities to get more exercise. For example, walk rather than ride whenever you can.
- Don’t try to lose too much, too fast. A pound or two a week is plenty.
- Plan meals around familiar foods—and a variety of them. Establish a nutritionally adequate way of eating that is satisfying—one that you can stick to for lasting weight control.

Underweight? You, too, need three balanced meals each day, but you can eat the extras shunned by weight reducers. Have more of the higher calorie foods. Snacks between meals, and seconds at meals will help, too. Get enough rest—it helps to conserve energy.

If you are very much overweight or underweight, see your doctor.

For help on planning reducing, or weight gaining diets, see “Food and Your Weight” (G-74).

In planning diets for children—and for older folks—the same basic principles apply. You need the same kinds of proteins, minerals, and vitamins, supplied by the four basic food groups, whatever your age.

USDA nutritionists have worked out food guides that help in planning specifically for the youngsters and the oldsters. The guides also include tips on getting children to accept new foods (try small portions) and tempting the appetites of the older folks (try peppering up flavor and seasoning). See the list of publications at the end of this section to find the guide you need.



School Lunch

Lunches served to children in schools taking part in the National School Lunch Program are a valuable aid to health and good nutrition. These lunches must meet USDA standards—provide one-third to one-half of the child's daily food needs. They must include:

- 2 ounces of protein-rich food (meat, fish, poultry, cheese, eggs, peanut butter, beans);
- $\frac{3}{4}$ cup of at least two fruits and/or vegetables;
- $\frac{1}{2}$ pint whole milk;
- 2 teaspoons butter or fortified margarine, and one portion enriched or whole grain bread.



To take part in the program, the schools must serve lunches free or at reduced price to children unable to pay the full price. The program must operate on a non-profit basis. USDA provides some foods and reimburses schools for some of the cost of foods bought locally.

These lunches are now available in schools (public and private) having two-thirds of the Nation's total enrollment. If your child attends a participating school, he can get one of the world's best bargains in good eating. It will not only benefit his health today, but teach him good eating habits for a lifetime.

To help children get enough milk, USDA operates a "Special Milk Program" which enables schools, camps, child-care institutions of all sorts to serve milk free or at reduced cost.

More Information

EAT A GOOD BREAKFAST. To start a good day. Practical tips. Food values, requirements. 1959. (L-268) 5¢.

FOOD. (1959 Yearbook of Agriculture) Thorough discussion of current knowledge on food and nutrition. Simple basic recipes, menus, food guides, tables of nutritive value and calories included. SALE. \$2.25.

FACTS ABOUT PASTEURIZATION OF MILK. Refutes mistaken beliefs. 1956. (L-408) 5¢.

FOOD AND YOUR WEIGHT. How to reduce or gain. List of caloric values in common foods, table of desirable weights for men and women. 1960. (G-74) 15¢.

GETTING ENOUGH MILK. Buying, grades, storing, amounts needed, recipes. 1957. (G-57) 15¢.

THE NATIONAL SCHOOL LUNCH PROGRAM. What it is. Kinds of foods served, food values. 1961. (PA-469).

NUTRITION—UP TO DATE—UP TO YOU. Reprinted from FAMILY FARE (G-1). Vitamins and other nutrients, food guides and plans, buying and storing, amounts to buy per serving. 1960. (GS-1) 15¢.

NUTRITIVE VALUE OF FOOD. List of food values and calories in 500 foods commonly used. 1960. (G-72) 20¢

See also starred * listings at end of section on Cooking.

CLOTHING AND FABRICS



Tips on Buying Clothes

Are you confused by the variety of clothes and fabrics—their wide range in quality? Many USDA publications can help you buy more intelligently.

In a man's suit much of the quality is hidden and shows up only after wear and cleaning.

Read labels. They contain information on fiber content, as well as cleaning instructions. Amounts of various fibers used are shown in order of quantity—that is, "Content: cotton, rayon, and nylon."

High-quality suits are made for many body types. Lower grades of suits are made in fewer size variations.

Suit lining, interfacing, and pocketing are of good quality if material is closely woven. Good lining and interfacing are soft and supple when crushed in the hand. You can't examine coat interfacing, but try rolling the tip of the collar and lapel; it will flip back into place in high-grade suits. Good pocketing has a leathery feel; in low-grade trousers pockets are coarsely woven and filled with sizing.

Patterned suiting that is matched indicates that the suit has been carefully made (this also applies to garments for women and children). Check these places for matching: center back seam of coat, side seams, armhole seams, where the edge of the collar rolls over and meets the coat in back, front closing, pocket openings, and collar notches.

High-grade trousers have generous seams and pockets, no piecings in the crotch, and facing that is hand-hemmed to the trousers.

When fitted for a suit, stand as you do normally—otherwise you will get a bad fit. (More information is given in "Men's Suits . . . how to judge quality" G-54.)





Some cotton knit T-shirts lose their shape after laundering more easily than others. USDA clothing researchers find that the cause is fabric structure. The tiny knit loops in the fabric, normally plump and round, may have been stretched during manufacture. After laundering, these loops relax, return to their normal shape, and the garment becomes shorter and wider.

Look for shirts with firm, even knitting. Avoid a fabric that has thin places. Often by examining the knit carefully, you can tell if the knit loops are round and relaxed, or are long and stretched. Remember, the more round the loops, the better the chance that the knit will retain its shape through repeated washing and drying.

There are different kinds of colorfastness—to light, to perspiration, to washing, to drycleaning, to crocking (rubbing off of color when fabric is dry). Unless it is guaranteed by the manufacturer, there is no sure way to tell colorfastness.

Generally, fabrics in which the fibers or yarns have been dyed before weaving are more colorfast than fabrics dyed after weaving. If torn ends of a solid-color material have a white or light appearance, it indicates that the fabric was dyed after weaving.

Vat dyes, if properly applied, are among those with best colorfastness. However, "vat-dyed" on a label does not always assure complete colorfastness—you need specific information on the kind of colorfastness. Labels will tell.

Sewing

It takes practice, care, and patience to sew. But USDA has many bulletins that simplify this once time-consuming task.

"Simplified Clothing Construction" (G-59) explains methods for easier cutting, marking, basting, and machine-sewing. Also included are step-by-step instructions for making collars, sleeves, facings, pockets, and front and side opening plackets.

Sewing Tips for Beginners

Don't select patterns by the size of ready-mades you wear—they are not always sized the same as patterns. (Most patterns are sold by bust measure.)

Select patterns with simple lines—they're easier to sew and are good, basic styles.

Alter a pattern to your body measurements to prevent excessive fitting after the garment is sewn. For further information, see "Pattern Alteration" (F-1968).

Select material that is firm, closely woven; in plain color or all-over design.

Baste with thread rather than pins. This takes longer, but the finished garment will look more professional.

Press each seam, dart, or fold thoroughly before crossing with another seam or fold.

In fitting a garment, work from the shoulders down—shoulders, neck, bust and back, sleeves; waist of skirt, hips.

Mending

Most men are hard on their suits, but mending can postpone the expense of a new suit. Professional tailoring techniques adapted for home use are described in the bulletin "Mending Men's Suits" (G-39).

Cuffs may be repaired five or six times before trousers are noticeably shortened.

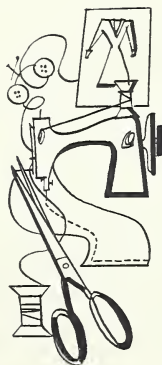
To prolong a suit's life, you can put wear guards in trouser legs, retreads in the knees and seats, and underarm shields in coats.

Rug Repair

If your rug has frayed ends, worn selvages, bare spots, or tears, "Carpet and Rug Repair" (F-1960) can give you instructions on how to mend it. Should you wish to cut a rug down to fit a smaller area, the bulletin also contains steps on how to bind the edges.

Clothing Designs

If you are a physically limited homemaker, USDA has designed clothing for your comfort and housework efficiency. "Clothes for the Physically Handicapped Homemaker . . . with features suitable for all women" (HERR-12) describes and pictures numerous garments that are easy to manage and which provide extra "give" at waistlines, under arms, and across the back. The tailored blouse provides an underarm open-and-shut feature which allows comfortable reaching for those who must sit as they work. A wrap-around skirt makes dressing and self-care easier for a wheelchair homemaker because it can be wrapped in back and allowed to lie in the sides of the chair until she rises.



Other clothes featured in the booklet are one-piece dresses, slacks with tapered legs and knee pleats, shorts, aprons—one with a lap pocket that holds flat articles so they can't slide when hands are needed to operate the wheelchair.

USDA clothing specialists, who originated the snow-suit and sunsuit, have also designed self-help clothing for youngsters. For suggestions on working out this idea, see "Child's Self-Help Overall" (L-251).

Stain Removal

Prompt treatment and the right method are the answer to successful stain removal.

Before using any stain remover, be sure it will not harm the fabric. Read labels on clothing and on stain removers. Or test a stain remover on a hidden part of the article.

If in doubt, send the stained article to a professional drycleaner. He has the skill, special equipment, and the reagents to handle more difficult stains and fabrics.

In some cases, such as grass stains, it is best to work from the wrong side of the fabric, forcing the stain out instead of in. On washable fabrics, work a detergent into the stain, then rinse. If the stain remains, use a chlorine or sodium perborate bleach or hydrogen peroxide. Don't use chlorine bleaches on fabrics that contain silk or wool, or have special finishes. Read the labels on wash-wear fabrics to see if it is safe to use a chlorine bleach.

Treat grass stains on nonwashable fabrics the same, but try alcohol first—if it is safe for the dye. Use 1 part alcohol to 2 parts water for stains on an acetate fabric.

For a persistent mustard stain in a washable fabric, soak the article in hot detergent solution for several hours—overnight, if necessary. If the stain still remains, use a bleach.

To remove candle wax, scrape the spot with a dull knife. Then place the stained cloth between clean white blotters or several layers of facial tissues and press with a warm iron. To remove the remaining stain, sponge with a grease solvent, such as carbon tetrachloride.

Caution: Fumes from all grease solvents are toxic. Use these solvents only with adequate ventilation. Some solvents are also flammable. Read the label and follow carefully any precautions listed.

For specific directions for removing 75 different types of stains, see "Removing Stains from Fabrics" (G-62).

Mildew Control

Mildew thrives in damp, warm, poorly aired, or poorly lighted areas.

Tips on prevention:

- Keep closets, dresser drawers, basements, and clothing as clean as possible.
- Get rid of dampness; ventilate house and closed areas, heat the house for a short time, or use silica gel or activated alumina to absorb moisture (they can be dried and used over and over).
- Get rid of musty odors; they indicate mold is present.
- Give some articles and surfaces special care; shower curtains and other household articles can be treated with fungicides that make them resistant to mildew.
- When you find mildew spots, remove them immediately; don't give the mold a chance to weaken or rot the article. Brush off surface growth outdoors, if possible, to prevent scattering the mildew spores in the house. Articles—clothing and household fabrics, upholstered articles, leather goods, wood, and books—can be thoroughly cleaned by methods described in "How to Prevent and Remove Mildew . . . home methods" (G-68).



Laundry Methods

Modern home laundry methods do not kill bacteria; so there's danger of spreading disease-causing bacteria in the family wash. If you use a community washer, you have the added danger of picking up someone else's bacteria that have been left behind in the machine.

Several kinds of disinfectants can be used to reduce the bacteria count. One kind is chlorine bleach. But chlorine bleaches cannot be used on all fabrics. So you may want to use other types of disinfectants in washing some fabrics. These are known as "quaternary," "phenolic," and "pine oil" disinfectants.

If you can't find a quaternary or phenolic disinfectant where you usually buy laundry supplies, try a janitors' supply house. Drugstores sell them, too.

Quaternary disinfectants should be added to the rinse water. Phenolic and pine oil disinfectants may go into either the rinse or wash cycles. Chlorine bleaches should be added to the wash water.

You don't need to use a disinfectant every time you wash—but it's a good idea when there is sickness in the home, the school, or the community, or when the sanitation of public laundry facilities is questionable.

If fabrics and colors will stand it, wash in hot water instead of warm for greatest soil removal and sanitizing. But remove stains first—some are set by hot water.

To keep from setting wrinkles in wash-wear fabrics (Arnel, cotton, Dacron, nylon, Orlon, and blends of these fibers), avoid squeezing or wringing. If you want to run them through the complete washer cycle, it's best to dry them at medium-heat setting, then let them tumble for about 10 minutes without heat. Take them out as soon as the action stops.

Wash and wear finishing processes for cottons are being constantly improved by the research of USDA chemists. Fabrics finished by the newer processes do not wrinkle when tumbled in an automatic dryer and are not yellowed or discolored by bleach. (These fabrics generally cost a little more than fabrics that do not have these properties.)

A new treatment for wool is on the way—developed by USDA chemists. (It's an ultra-thin resin coating on wool fiber.) Garments made of the treated wool can be washed in machines without shrinking, are easy to iron, and keep their neat, pressed appearance longer than untreated wool garments.

More Information

CARPET AND RUG REPAIR. 1944. (F-1960) 10¢.

CLOTHES FOR THE PHYSICALLY HANDICAPPED HOMEMAKER . . . with features suitable for all women. 1961. (HERR-12) 30¢.

DETERGENTS FOR HOME LAUNDERING. Discussion of different types, how they work. 1963. (G-49) 5¢.

FITTING COATS AND SUITS—for women. 1963. (G-11) 20¢.

FITTING DRESSES. 1946. (F-1964) 15¢.

HOW TO PREVENT AND REMOVE MILDEW . . . home methods. 1960. (G-68) 10¢.

HOW TO TAILOR A WOMAN'S SUIT. 1956. (G-20) 20¢.

LEATHER BOOKBINDINGS: HOW TO PRESERVE THEM. Restoring old books, protecting new ones. 1956. (L-398) 5¢.

MAKING HOUSEHOLD FABRICS FLAME RESISTANT. Methods for treating fabrics that commonly catch fire in the home. 1963. (L-454) 5¢.

MENDING MEN'S SUITS. 1956. (G-39) 20¢.

MEN'S SUITS . . . how to judge quality. 1963. (G-54) 25¢.

PATTERN ALTERATION. 1945. (F-1968) 15¢.

REMOVING STAINS FROM FABRICS . . . home methods. 1961. (G-62) 15¢.

SIMPLIFIED CLOTHING CONSTRUCTION. 1959 (G-59). 20¢.



HOUSE AND HOME



House Location

If you plan to buy or build a house, the site, naturally, is your first consideration. What kind of soil do you have to deal with?

Some soils are easily worked and make stable footings for buildings; others settle, swell, or shrink and cause cracks in foundations and failures of walls and ceilings.

Some soils take in water easily and drain promptly; others are impervious or persistently waterlogged. This is particularly important if you are buying or building beyond the city sewer lines and must depend upon a septic tank for sewage disposal.

Because soils vary so much from place to place, it is not possible to give specific recommendations for all localities.

You can tell a great deal by examining the soil yourself—if possible, dig in and see what lies below the surface. "Soil Conservation at Home" (AB-244) suggests some simple tests you can make.

If you have any doubt about the absorptive capacity of the soil, you should have a percolation test made. See "Soils Suitable for Septic Tank Filter Fields" (AB-243).

And you can get expert help. Consult your city or county planning commission, local health department, or State board of health, agricultural extension specialist, or engineering or agricultural departments of the State college or university.

USDA has published soil survey reports covering much of the country. These reports contain soil maps and soil descriptions and interpretations. They will help you locate soils that are well suited to building sites. If you have to depend on a septic tank, the soil survey report will help you locate the kind of soil that will absorb the effluent.





This house was built on an unstable soil, which has slipped and swelled, causing the house to crack apart. (For advice on picking house site see "Soil Conservation at Home"—AB-244.)

To see these reports and for help in interpreting them, see your county agent or the local technician of the USDA's Soil Conservation Service. Also, some suburban counties now employ their own soil specialists.

Another point to consider: orientation of the house to the site. Interior arrangement should be related to external surroundings—but not everybody thinks about it. Which way do winter winds and summer breezes come? Where will the sun's rays be concentrated in summer and in winter? Shading of east and west walls and windows is desirable to reduce heat from the summer sun. A large roof overhang on the southern exposure is even more important in northern than in southern latitudes.

House Plans

House plans designed for farms but just as useful to the urbanite or suburbanite are available from State land-grant universities and colleges. They are based on USDA and State laboratory research to determine space needs and efficient arrangements of space for all major household activities and storage.

House Plan No. 7156, for example, provides 105 square feet of interior closet space and 63 feet of outside storage space. In the U-shaped kitchen (designed by USDA), the arrangement and dimensions of counters and storage spaces are based on research findings. The workroom provides ample room for laundry equipment, heater, and home freezer.

This particular design is an improved version of an earlier house plan that was tried in a small housing experiment in which farm workers and their families lived in five USDA-designed low-cost houses to help test livability and construction. The revised design reflects opinions of the occupants as well as the latest research findings.

You can get folders describing and illustrating this and other home plans. See the publications list at the end of this section. Or your county agent or home agent can show you a catalogue of all available plans. There are about 90 of these plans. They range from a vacation cabin to a contemporary four-bedroom, 2½-bath house. Working drawings are distributed only through the State land-grant universities and colleges. Some States furnish plans to residents without charge. In others, a charge of about 30 cents per sheet is made to cover printing and mailing. If the plans are not available in your State, write to the U.S. Department of Agriculture, Agricultural Engineering Research Division, Plant Industry Station, Beltsville, Maryland, and you will be directed to a State that will send you plans.



Kitchens

Slant-front wall cabinets that keep stored items within easy reach are among conveniences in USDA's newest energy-saving kitchen design.

Three of these kitchens have been designed by USDA housing specialists to provide maximum convenience for the homemaker in meal preparation and other kitchen activities. The designs incorporate research findings on the amount of space and human energy required for various household activities. They also provide for the amount of space needed and efficient arrangement of equipment and storage.

If you're building a new home or thinking of remodeling your present kitchen, you can glean valuable ideas from the plans for these energy-saving kitchens.

In the slant-front cabinet, for instance, the bottom shelf is only 4 inches above the counter. This permits small, frequently used items such as spices and flavorings



Here is the slant-front cabinet as it was incorporated in the Beltsville energy-saving kitchen No. 3. It is used here to form part of a "mix center," to store package supplies, seasonings, flavorings, and mixing and baking utensils. The base cabinet of this mix center has two banks of drawers with space between for sitting and storing the chair when it is not in use. (For more information, sketches for building cabinets, see Beltsville Energy-Saving Kitchen, Design No. 3—L-518.)

to be stored within easy reach, yet provides adequate working space on that counter. Everything in the cabinet is stored only one deep. The wide top shelf, with its wire dividers, lets you "file" pie and cake pans and mixing bowls vertically like phonograph records. Because the cabinet is hung so low, you can reach these even from a sitting position.

Wood

You can find out almost anything you want to know about wood—from how to build a frame house to how to remove an ink spot from a wood floor (use oxalic acid or commercial wood bleach)—from USDA. In most cases, you can get a publication covering the subject. A few excerpts:

On wood decay: There is no problem if a house is properly built and maintained. Moisture is the villain. Control moisture and you've got decay under control.

Look out for such conditions as poor ventilation under basementless houses; wood parts of the house in direct contact with soil (especially at dirt-filled porches); wood parts embedded in masonry near the ground; unventilated attics; sheathing paper that doesn't "breathe" (vapor barriers should face the inner, or warm, wall).

Where moisture can't be controlled, use preservatively treated or naturally durable wood. Most resistant are: Heartwood of redwood, most cedars, tidewater red cypress.

On painting: A good white house paint should last at least 4 or 5 years before it must be renewed; tinted paints, 5 or 6 years; and dark-color paints, 6 to 8 years.

Don't paint too often. The basic rule is, paint only after most of the old paint film has weathered away. If paint is built up too thickly, it may require costly and time-consuming removal before a new coat can be applied.

In repainting, it's a good idea to use the same type of paint as before. If you want to change to a different type, it's best to wait at least 4 years after the last repaint job before making the change.

On new siding, a coat of water-repellent preservative is recommended for use under moisture-sensitive paints, natural finishes, or stains that contain no fungicide. If the house is built in fall or winter, the coat of water-repellent preservative will be good protection until the warm, dry weather needed for painting comes along.

The proper choice of primer can do much to insure a long-lasting, trouble-free paint job. As a rule, it is wise to use the same brand of primer and finish paint. The primer should be free of zinc pigments, even if a zinc-containing paint is used for the finish coat.

A special primer is needed for flat-grained wood with wide summerwood bands, and wood with knots. Aluminum house paint (aluminum paint for wood) has been found best.

Home Equipment

Buying household equipment merits careful thought. Federal and State laboratories have done research in this field for a long time. The results may be helpful to you.

A few tips:

- Between upright and chest-type freezers, there's little difference in cost of operation. But frost-free types may cost twice as much to operate as conventional types.
- Cost of operation is least for the conventional refrigerator, greatest for the frost-free refrigerator-freezer combinations. The latter may cost 40 to 100 percent more to operate than a refrigerator-freezer in which the freezer is manually defrosted. But in frost-free units, ice cubes and frozen food packages do not stick together and lack of frost makes for more storage space.
- No one type of washing machine action is consistently better than another in ability to remove soil—although

that of automatic and semiautomatic washers is generally equal or superior to that in nonautomatic washers.

- Automatic dryers that operate on 120 volts require more than twice as long to dry a load as those that operate on 240 volts.
- If you're buying a sewing machine, try it out. Sew long enough to satisfy yourself as to what the machine will do. Make sure that the knee control is not too far to the right and the needle position is not too far to the left for you to sit comfortably.

Electricity—Tips on Use

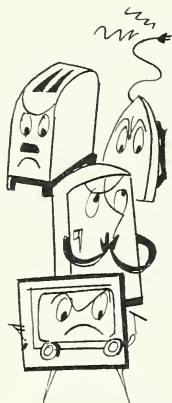
A 100-watt bulb gives out more than twice as much light as two 50-watt bulbs. For maximum light, use one bulb of higher wattage, rather than two small ones that add up to that wattage.

Extension cords can be fire hazards. Buy only those that carry a "UL" (Underwriters Laboratory) tag; when they become worn or frayed, throw them out. The ordinary extension cord is designed only for use with lamps or other low-wattage items such as electric clocks or fans. If you *must* use an extension cord for an electric iron or electric heater (not advisable), be *sure* to get a heater-type cord. For power tools, you should use a special three-wire type cord that provides for grounding.

Don't overload your electric circuits—nor use a fuse too large for the circuit. If you do, you not only create a fire hazard, but the voltage of the line may drop sufficiently to cause damage to electric motors. A 15-ampere circuit will safely carry a maximum of 1800 watts; a 20-ampere circuit can handle a maximum of 2400 watts. Add up the wattage of all the light bulbs and appliances on each of your circuits. If any exceed these totals, take something off the circuit to reduce the load. Perhaps an appliance can be shifted from one side of the room to another, where there is a different circuit.

If a fuse blows, disconnect the lamps and appliances in use when it went out. Open the main switch to cut off the current while you replace the fuse. Use the proper size fuse. Close main switch, then reconnect the appliances one at a time.

If you live in the country—or are moving there—a properly designed and installed lightning protection system is a good safeguard. Be sure a qualified contractor installs your system, and insist on a "Master Label" job. This label is awarded after a system of checking, involving both the Underwriters laboratories and the manufacturer, has determined that the installer has done his job properly.



More Information

Some of these bulletins were written for farmers, but they contain information that is useful as well to city and suburban residents.

BUYING YOUR HOME SEWING MACHINE. What to look for on new or used machine. 1960. (G-38) 10¢.

EASY-TO-BUILD KITCHEN CABINETS FOR THE REMODELED FARMHOUSE. Working drawings, list of needed materials. 1952. (G-18) 15¢.

FARM FENCES. Types of fencing, durability, ease of erection and maintenance. 1961. (F-2173) 15¢.

YOUR FARMHOUSE . . . HEATING. Types of heating systems. How they work. 1962. (M-689) 20¢.

YOUR FARMHOUSE . . . PLANNING THE BATHROOM. Floor plans, plumbing, storage, heating, lighting, wall finishes, floor coverings. 1952. (G-19) FOR SALE ONLY. 10¢.

FARMSTEAD SEWAGE AND REFUSE DISPOSAL. All about septic tank systems. Discussion of other refuse disposal methods. 1963. (AB-274) 20¢.

FIREPLACES AND CHIMNEYS. Design, construction, maintenance. Also, prefabricated and outdoor fireplaces. 1963. (F-1889) 15¢.

HOME FREEZERS . . . THEIR SELECTION AND USE. Points to consider, costs of operation, sizes, servicing. 1961. (G-48) 15¢.

PLANNING THE ELECTRIC WATER SYSTEM AND PLUMBING FOR YOUR FARMSTEAD. Important facts about water systems and plumbing, types of pumps, aid in planning. Not how to install. 1961. (M-674) SALE. 15¢.

PREVENTING STORM WIND DAMAGE TO FARM BUILDINGS. Causes of building failures, how to safeguard buildings. 1956. (AB-144) 20¢.

ROOFING FARM BUILDINGS. Types of roofing, methods of repair and re-roofing. 1961. (F-2170) 15¢.

SINGLE-PHASE ELECTRIC MOTORS FOR FARM USE. Types, installation, protection and control, servicing. 1961. (F-2177) 15¢.

SOILS SUITABLE FOR SEPTIC TANK FILTER FIELDS. How to use soil survey map, calculate size of field needed, make a percolation test. 1961. (AB-243) 15¢.

SPACE STANDARDS FOR HOUSEHOLD ACTIVITIES. Aid for architects and others planning houses. Tells how much space is needed around a dining table for comfortable seating and easy serving—room needed for bedmaking, cleaning under a bed. 1962. Published by Illinois Agricultural Experiment Station, Urbana, Ill. May be obtained from that address.

STANDBY ELECTRIC POWER EQUIPMENT FOR THE FARM. Requirements, types, maintenance. 1960. (L-480) 5¢.

STORAGE UNITS FOR HOUSEHOLD LINENS. Design data for architects and others designing storage spaces. 1956. (AB-150) FROM USDA ONLY.

WOOD: COLORS AND KINDS. Full-color illustrations, aids for identifying 32 kinds of wood, principal uses and characteristics. 1956. (AH-101) FOR SALE ONLY. 50¢.

WOOD DECAY IN HOUSES: HOW TO PREVENT AND CONTROL IT. Full directions. 1960. (G-73) 15¢.

WOOD FLOORS FOR DWELLINGS. Manual on wood flooring, installation, finishing, maintenance. 1961. (AH-204) 35¢.

WOOD-FRAME HOUSE CONSTRUCTION. Textbook for house builder, from foundation to roof. 1955. (AH-73) FOR SALE ONLY. 65¢.

WOOD PROPERTIES AND PAINT DURABILITY. How wood takes and holds paint; suggestions for painting difficult woods. 1962. (M-629) 10¢.

WOOD SIDING: HOW TO INSTALL IT, PAINT IT, CARE FOR IT. Detailed instructions, especially on painting. 1956. (G-52) 10¢.

Planning Aids

SELECTING AND USING A FARMHOUSE PLAN. Basic information on USDA house plans, how to obtain working plans. 1961. (M-880) 5¢.

HOUSE PLANS. These are one-sheet flyers, describing and illustrating a particular plan—exterior sketch, floor plan; special features, square feet of living area, garage, patio; site plan. How to obtain working drawings. These are selected examples. More than 90 are available. See county agents or home demonstration agents.

3-BEDROOM FARMHOUSE WITH FAMILY ROOM, PART BASEMENT, CARPORT, Plan No. 7134. 1958. (M-758) FOR SALE ONLY. 5¢.

3-BEDROOM FARMHOUSE WITH 2 FULL BATHS, Plan No. 7136. 1960. (M-812) FOR SALE ONLY. 5¢.

1-BEDROOM FARMHOUSE WITH FLEXIBLE LIVING FEATURES, Plan No. 7146. 1960. (M-826) 5¢.

2-BEDROOM FARMHOUSE WITH BELTSVILLE KITCHEN DESIGN No. 2, Plan No. 7149. 1960. (M-827) 5¢.

3-BEDROOM FARMHOUSE INCORPORATING BELTSVILLE ENERGY-SAVING KITCHEN DESIGN No. 2, Plan No. 7152. 1960. (M-829) FOR SALE ONLY. 5¢.

3-BEDROOM FARMHOUSE WITH ATTACHED TWO-CAR GARAGE, Plan No. 7132. 1961. (M-842) FOR SALE ONLY. 5¢.

2-BEDROOM FARMHOUSE WITH BASEMENT, Plan No. 7159. 1961. (M-876) 5¢.

2-BEDROOM FARMHOUSE WITH SLAB-ON-GRADE CONSTRUCTION, Plan No. 7160. 1961. (M-877) 5¢.

2-BEDROOM FARMHOUSE WITH CARPORT, PLAN No. 7156. 1962. (M-897) 5¢.

3-BEDROOM FARMHOUSE, SLAB ON GRADE, FRAME CONSTRUCTION, Plan No. 7150. 1962. (M-912) 5¢.

1-BEDROOM FARMHOUSE . . . SLAB ON GRADE, FRAME CONSTRUCTION, Plan No. 7154. 1962. (M-915) 5¢.

3-BEDROOM FARMHOUSE, MASONRY, WITH BASEMENT, Plan No. 7139. 1962. (M-917) 5¢.

CABIN—FRAME, SLAB ON GRADE CONSTRUCTION, Plan No. 5928. 1963. (M-924) 5¢.

Kitchen Planning Aids

BELTSVILLE ENERGY-SAVING KITCHEN, DESIGN No. 2. Two arrangements; kitchen oriented to family room with dining area. 1963. (L-463) 5¢.

BELTSVILLE ENERGY-SAVING KITCHEN, DESIGN No. 3. Features three arrangements, a slant-front wall cabinet, built-in cutting board and wastebasket; drawings from which cabinets can be built. 1963. (L-518) 5¢.

THE BELTSVILLE KITCHEN-WORKROOM WITH ENERGY-SAVING FEATURES. Planned for space 17½ by 18 feet. Kitchen area features broken-U arrangement; workroom includes desk, laundry facilities, food storage, freezer, cleaning closet, ironing closet. 1958. (G-60) 10¢.

A STEP-SAVING U KITCHEN. Features centers for mixing, cooking, serving, dishwashing, planning. 1951. (G-14) 10¢.

U-SHAPED KITCHEN ARRANGEMENTS. 1963. (M-933) SALE ONLY. 5¢.

BROKEN-U KITCHEN ARRANGEMENTS. 1963. (M-934) SALE ONLY. 5¢.

L-SHAPED KITCHEN ARRANGEMENTS. 1963. (M-935) SALE ONLY. 5¢.

PARALLEL-WALL KITCHEN ARRANGEMENTS. 1963. (M-936) FOR SALE ONLY. 5¢.

PEST CONTROL



Use Pesticides Safely—Read the Label

Pesticides are poisons. Many are powerful enough to cause injury to humans and animals if used improperly. *When you use pesticides, use them safely.*

USDA regulates registration and labeling of pesticide chemicals. But the final responsibility for safe use is up to you—the user.

In selecting a pesticide, read the label to find whether it is effective against the pest you want to control. Before you use the pesticide, read the label again. It explains how to prepare and apply the chemical, whether you must wear gloves or protective clothing.

Follow the instructions, not just the first time but *every time* you use the chemical. Some safety pointers for gardeners:

- Use the recommended dosage, or less if it will do the job. Using too much may harm humans, plants, animals, or leave harmful residue.
- DDT, Kelthane, malathion, pyrethrum, and rotenone can be used without special protection *if* they are in dilute dusts or water sprays. Most liquid concentrates and oil solutions require special precautions; avoid spilling them on the skin, and keep away from face. When opening a pesticide container, keep your face away from the cap.
- Dilute and mix sprays outdoors or in a well-ventilated place. If you spill liquid concentrate on skin or clothing, wash yourself immediately with soap and water. Change into clean clothes. Do not mix different insecticides unless the label recommends it.
- Chlordane can be absorbed directly through the skin. When working with this insecticide in any form take the same precautions as with concentrates.
- When applying pesticides, protect yourself. Guard against contamination of skin and clothing. If the label recommends it, wear a mask or respirator on your face.



If the day is windy, or if drift is likely to occur, do not spray or dust. Keep pesticides away from streams, lakes, and ponds. Fish are highly sensitive to many of them. Never apply pesticides near dug wells or water cisterns.

Keep herbicides away from flowers, shrubs, and other susceptible plants. To prevent harmful residue, never spray fruit and vegetable plants during the specified period before harvest. Never spray edible plants before picking.

Remember that pesticides can enter the body through the mouth, by absorption through the skin, and by inhalation. Wash your face, hands, and exposed parts of your body after handling or applying pesticides.

Store pesticides in tightly closed containers, where children and pets cannot reach them.

Household Insects—Tips on Control

Sanitation is the first rule for control of all household pests. Find and destroy breeding places. Treat such areas with insecticides recommended for the specific pest (labels will tell). If you have a particular problem, USDA entomologists have developed a series of leaflets giving extensive recommendations for control of various kinds of pests; see the list at the end of this section. These leaflets will help you to identify the "bug"—and they also recommend appropriate precautions to take when using pesticides.

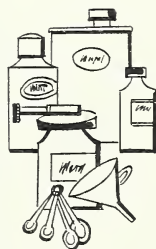
A few tips:

- *Flies*—Many flies are now resistant to DDT and similar insecticides. In this case, try activated pyrethrins (pyrethrins combined with a synergist such as piperonyl butoxide, n-propyl isome, sesame oil). Check the label.
- *Fleas*—If fleas invade your house, they can be controlled with sprays containing 5 percent DDT or methoxychlor or a 2-percent malathion spray. These may be purchased ready to use. Apply spray to baseboards and walls to a height of about 1 foot. Apply a light mist to furniture upholstery, rugs, and other fabrics. Before spraying, clean rooms and upholstered furniture with a vacuum cleaner.
- *Chiggers*—Chigger bites can be prevented by using a repellent. Those containing diethyltoluamide, dimethyl phthalate, dimethyl carbate, ethyl hexanediol, or benzyl benzoate, or a combination of these ingredients, are effective. Itching from bites can be reduced by bathing and by applying an antiseptic



and a local anesthetic to the welts. You can get rid of an infestation by spraying or dusting the infested area with an insecticide; recommended are chlordane, toxaphene, and lindane.

- *Mosquitoes*—For temporary control at an outdoor gathering, spray pyrethrum or allethrin, available ready for use, so that it will drift through bushes, grass, and other vegetation. Repeat every few hours. Effective repellants contain diethyltoluamide, ethyl hexanediol, dimethyl phthalate, or dimethyl carbate—singly or in combination.
- *Cockroaches*—Diazinon and malathion will control roaches resistant to chlordane, dieldrin, and DDT; diazinon should be used in 0.5-percent oil solution or water emulsion, malathion in 2-percent oil solution or water emulsion—BUT do NOT use these over an entire room. Use them only to treat places where roaches run or hide. For other methods, see cockroach leaflet.
- *Ants*—Chlordane is effective. An oil-base spray should contain 2 percent. Follow label instructions and precautions. Treat cracks in floors or walls, along shoe moldings, baseboards, window frames, door frames; around electrical outlets and plumbing and heating pipes; around sinks, bathtubs, and kitchen cupboards.
- *Bedbugs*—Use a spray containing at least 0.2 percent pyrethrins, 1 percent synergists (such as piperonyl butoxide, sulfoxide, propyl isome, sesame oil), and 2 or 3 percent of DDT. In treating a bed, be thorough. Don't miss any crevices where bugs may hide.
- *Clothes moths and carpet beetles*—Keep them out by cleaning often enough to prevent lint and hair from accumulating—especially in out-of-the-way spots; and by treating susceptible items. If an infestation gets started, you will need to spray the premises (closets, corners, cracks, etc.) with an effective insecticide, or employ a reputable pest-control firm.
- *Termites*—Swarming of winged adults may be the first sign of infestation. Another sign is flattened, earth shelter tubes leading from foundation walls to woodwork. To live, termites must maintain contact with soil or another source of moisture. Chemicals can be used to control them; but it's an exacting job. See "Subterranean Termites—Their Prevention and Control in Buildings" (G-64). This bulletin also contains good advice for homebuilders.



- *Ants or Termites?*—Winged ants are often mistaken for termites. There are two easy ways to tell them apart:
 - (1) Ants are constricted, or "pinched in," at the waistline. Termites have thick waistlines.
 - (2) The rear pair of wings of an ant are considerably smaller than the front wings. There is little difference in size between the front and rear wings of a termite.



Ant



Termite

Insects and Diseases in the Garden

For many years, USDA has waged war on the insects and diseases that attack farmers' crops, trees, and grass. Today's abundant production of food and fiber would be impossible without the controls that have been developed. Much that has been learned is of practical use, also, to the homeowner and gardener and has been published for their use.

In general, advice must be tailored to each kind of plant. "Insects and Diseases of Vegetables in the Home Garden" (G-46) covers all of the vegetables commonly grown by the home gardener. It tells how to recognize the common insects and diseases that attack vegetables, specifies insecticides and fungicides to use, gives directions for preparing and applying them, and discusses other control measures.

"Controlling Insects on Flowers" (AB-237) gives comparable information for flowering and ornamental-foilage plants. It covers 150 insects and related pests.

Recommended measures to help prevent losses from insects and diseases are:

1. Use fertile well-drained soil and a good fertilizer.
2. Grow only the plants and varieties that are suited to your particular soil and climate.
3. Keep down weeds and grass.
4. Buy disease-free and certified seed when possible.
5. Treat seed with chemicals to protect against decay and damping-off.
6. Buy disease-free plants; make sure they do not have swellings on the roots, cankers on the stems, or spots on the leaves.
7. Grow disease-resistant varieties if available. Resistant varieties are available for only a few diseases

of certain crops. Some of these are highly resistant, others only partially.

8. Destroy plants of each annual crop as soon as harvest is completed.

More Information

ANTS IN THE HOME AND GARDEN: HOW TO CONTROL THEM. 1963. (G-28) 10¢.

BLIGHT OF PEARS, APPLES, AND QUINCES. 1963. (L-187) 5¢.

CABBAGE INSECTS: HOW TO CONTROL THEM IN THE HOME GARDEN. 1963. (G-44) 5¢.

CHIGGERS: HOW TO FIGHT THEM. 1963. (L-403) 5¢.

CLOTHES MOTHS AND CARPET BEETLES: HOW TO COMBAT THEM. 1961. (G-24) 15¢.

CLOVER MITES: HOW TO CONTROL THEM AROUND THE HOME. 1962. (L-443) 5¢.

COCKROACHES: HOW TO CONTROL THEM. 1962. (L-430) 5¢.

CONTROLLING INSECTS ON FLOWERS. Discusses and identifies 150 insects—harmful and beneficial. Gives control methods. 1962. (AB-237) FOR SALE ONLY. 40¢.

CONTROLLING LAWN WEEDS WITH HERBICIDES. 1962. (G-79) 10¢.

CONTROLLING MOSQUITOES IN YOUR HOME AND ON YOUR PREMISES. 1962. (G-84) 10¢.

DISEASES OF SHADE AND ORNAMENTAL MAPLES. 1961. (AH-211) FOR SALE ONLY. 15¢.

ELM BARK BEETLES. 1963. (L-185) 5¢.

THE ELM LEAF BEETLES. 1960. (L-184) 5¢.

FLEAS: HOW TO CONTROL THEM. 1962. (L-392) 5¢.

HAND SPRAYERS AND DUSTERS. Discusses different types. 1959. (G-63) 10¢.

THE HOUSE FLY: HOW TO CONTROL IT. 1963. (L-390) 5¢.

HOW TO CONTROL BED BUGS. 1959. (L-453) 5¢.

INSECTS. (1952 Yearbook of Agriculture.) Somewhat technical. FOR SALE ONLY. \$3.25.

INSECTS AND DISEASES OF VEGETABLES IN THE HOME GARDEN. 1963. (G-46) 25¢.

INSECTS AND RELATED PESTS OF HOUSE PLANTS: HOW TO CONTROL THEM. 1960. (G-67) 15¢.

THE JAPANESE BEETLE: HOW TO CONTROL IT. 1963. (F-2151) 15¢.

LAWN DISEASES: HOW TO CONTROL THEM. 1963. (G-61) 15¢.

LAWN INSECTS: HOW TO CONTROL THEM. 1956. (G-53) 15¢.

THE OLD HOUSE BORER. 1961. (L-501) 5¢.

POWDER-POST BEETLES IN BUILDINGS: WHAT TO DO ABOUT THEM. 1959. (L-358) 5¢.

PROTECTING LOG CABINS, RUSTIC WORK AND UNSEASONED WOOD FROM INJURIOUS INSECTS IN EASTERN UNITED STATES. 1962. (F-2104) 15¢.

SILVERFISH AND FIREBRATS: HOW TO CONTROL THEM. 1961. (L-412) 5¢.

SOIL TREATMENT—AN AID IN TERMITE CONTROL. 1961. (L-324) 5¢.

SUBTERRANEAN TERMITES, THEIR PREVENTION AND CONTROL IN BUILDINGS. 1963. (G-64) 15¢.

WASPS: HOW TO CONTROL THEM. 1963. (L-365) 5¢.



GARDENING

Gardening is an art. USDA offers many bulletins and books which are helpful, but even with their aid, practice and experience are essential. Guidance from an experienced gardener is valuable.

The best advice is that from the reliable authority nearest home. Your county agent or agricultural experiment station, your land-grant college or university, or your local dealer can advise on the varieties of plants—shrubs, trees, vegetables, flowers and lawn grasses—suited to your locality. And they can give you help on soil and water problems.

Planning

Successful home gardening and landscaping requires planning. A detailed plan drawn to scale on graph paper will help you fit your plans to your land. See "Soil Conservation at Home" (AB-244) for some how-to-do-it hints.

To begin with, you need to know: soil conditions; the air drainage and frostiness; the water supply you can count on, both natural and artificial; the light that falls on plants during the seasons; and the protection required against hazards of wind, tree roots, and animals.

You may have to deal with soils that are too hilly, too sandy, too clayey, too dry, too wet, or too infertile. But these conditions can be modified. And, you can find some kind of plant suitable for almost any kind of soil as it is.

Drainage

If you have a wet basement, seepy spots, or water-logged soils, you may need to install tile lines or other means of draining them. Some knowledge of soils and engineering is necessary to analyze most drainage problems. Technical help could save you much effort expended in trial-and-error attempts.

If you have any doubt about the drainage of a particular spot you hope to plant, you can dig holes to the depth that roots normally grow—say 2 to 3 feet, depending on the plants—and fill them with water. For all

garden plants that require well-drained soils, the water should disappear within 30 minutes or an hour. If it does not disappear within 24 hours, only shallow-rooted plants could be expected to survive.

The practice of "bedding" makes it possible to grow plants successfully on many soils that normally drain slowly. In bedding, you shape the surface of the soil into broad parallel ridges separated by furrows to lead excess water away. The plants grow in the well-drained soil of the ridges.

Water and Air

Some irrigation is needed in most gardens. But you can conserve water if you prepare the soil properly, build terraces where they are helpful, and use mulches to protect the surface.

Evergreens need watering during severe winter droughts as well as summer droughts.

Air drainage of the garden affects its frostiness. If the garden is relatively high on a slope, the cold air moves or drains away from it into the low ground, so that plants escape the late-spring and early-autumn frosts that kill plants in the low ground. The gardener on low ground thus has a shorter growing season than his neighbors on high ground with good air drainage. When you estimate the frost-free days from the reports of the nearby weather station, you should consider these local ground conditions.

Sun and Shade

The light requirements of plants vary greatly. You need to study your place to determine the hours of sunshine for the various parts of it, remembering that under deciduous trees there is little shade in winter and early spring and heavy shade in summer.

Nearly all vegetables and fruits do best in full sun, although the salad crops need shade in warm sections. Tomatoes grow fairly well in half the normal sunshine.

Other plants prefer shade. A few ornamentals flourish in the continuous shade on the north side of a building. Some do well with winter and spring sun and summer shade, as under an oak tree.

Some lawn grasses prefer full sun and others partial shade. Ivy or other ground cover is more satisfactory than grass in heavy shade.

Competition

Plants need protection from competing roots, wind, and animals.



Roots from a competing tree may be pruned by digging a trench along one side, and putting in a steel barrier to whatever depth the roots penetrate, say 2 to 4 feet. This will provide permanent protection for flowerbeds, vegetables, and shrubs.

Flowerbeds may be protected from grass roots with 4-inch steel barriers and from most shrub roots with 12-inch barriers.

Wind is a serious hazard in many parts of the country—hot winds in the summer, cold winds in winter, or both. A windbreak of ornamental trees, especially evergreens, will help.

Hints for Beginners

Here are some "don'ts" that will help the beginning gardener avoid some of the commonest mistakes:

DON'T spade, plow, or cultivate soil that is too wet. Squeeze a handful into a ball. If it still crumbles apart, it's safe to work. If the soil clings together and cannot readily be broken up, it is too wet.

DON'T apply too much lime—have the soil tested and use only amounts indicated. (Consult county agents, garden stores, or experiment stations about soil-testing sources.)

DON'T run the rows up and down a slope.

DON'T plant seeds, roots, or tubers too deeply. (Check instructions on packages or consult garden books.)

DON'T sow seeds too thickly, and DON'T fail to thin out plants properly. (Again, follow directions given on packages or in books.)

DON'T guess at the amounts of fertilizer or strong manure to apply.

DON'T let fertilizer or manure come in contact with seeds or plants.

DON'T cultivate deeply enough to injure the shallow roots of vegetables.

DON'T let weeds get big before you try to destroy them.

DON'T apply water in numerous light sprinklings, but water thoroughly about once a week if the ground is dry. (Exception: sandy soils require more frequent and lighter watering.)

DON'T fail to mow grass often, but DON'T clip it too close—a height of 1½ to 2 inches is usually best.

DON'T let grass grow unusually high and then clip it back. If you must let it grow high, be sure to remove clippings to prevent smothering grass.

DON'T leave the soil in such condition that it will wash or blow away during the winter.



House Plants

Many house plants survive under usual household conditions. But for best results, you need to supply the environment—light, temperature, and humidity—that is recommended for each plant. This information is supplied for a large number of plants in the bulletin "Selecting and Growing House Plants" (G-82).

Here are some common difficulties of house plants and their causes:

Symptom	Possible cause
General defoliation.	Sudden change in temperature. Transplanting shock. Sudden change in lighting intensity—moved from strong sunlight to a dark location. Overwatering.
Leaves drop, shoots remain dwarfed and branch repeatedly. New leaves are small.	Gas injury (unburned cooking gas in the atmosphere).
Browning of leaf tips.	Improper watering. Exposure to cold drafts. Insect attack. Excess fertilizer.
Loss of normal foliage color.	Overwatering. Lack of fertilizer. Insect attack.
Spotted foliage.	Overwatering. Burning from direct sunlight.

More Information

Some bulletins intended for farmers are also listed because they provide useful information for the home gardener.

BETTER LAWNS. Guide for the homeowner—establishment, maintenance, renovation, lawn problems, grasses. 1962. (G-51) 15¢.

COMMERCIAL GROWING OF SWEET CORN. 1961. (F-2042) 15¢.

COMMERCIAL PRODUCTION OF TOMATOES. 1963. (F-2045) 25¢.

CULTURE, DISEASES, AND PESTS OF THE BOX TREE. 1959. (F-1855) 15¢.

DWARF FRUIT TREES: SELECTION AND CARE. 1961. (L-407) 5¢.

ELECTRIC HEATING OF HOTBEDS. Tips on construction. 1962. (L-445) 5¢.

ESTABLISHING AND MANAGING YOUNG APPLE ORCHARDS. 1962. (F-1897) 15¢.

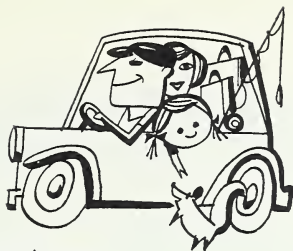
GARDENIA CULTURE. Indoors and out. 1961. (L-199) 5¢.

GROWING FLOWERING ANNUALS. Covers 43 varieties. 1963. (G-91) 15¢.

GROWING AZALEAS AND RHODODENDRONS. 1960. (G-71) 5¢.

- GROWING BLACKBERRIES. 1963. (F-2160) 10¢.
- GROWING CAMELLIAS. 1962. (G-86) 10¢.
- GROWING AMERICAN BUNCH GRAPES. 1963. (F-2123) 15¢.
- GROWING CHRYSANTHEMUMS IN THE HOME GARDEN. 1959. (G-65) 5¢.
- GROWING EGGPLANT. 1962. (L-351) 5¢.
- GROWING THE FLOWERING DOGWOOD. 1963. (G-88) 5¢.
- GROWING IRIS IN THE HOME GARDEN. 1962. (G-66) 5¢.
- GROWING ORNAMENTAL BAMBOO. 1961. (G-76) 5¢.
- GROWING RASPBERRIES. 1961. (F-2165) 10¢.
- GROWING VEGETABLES IN TOWN AND CITY. Covers 50 kinds. 1962. (G-7) 25¢.
- HOME PROPAGATION OF ORNAMENTAL TREES AND SHRUBS. How to multiply plants by layers, cuttings, and grafts. 1962. (G-80) 10¢.
- HOTBEDS AND COLDFRAMES. Discussion of types, construction, growing of plants. 1952. (F-1743) FOR SALE ONLY. 15¢.
- HOW MUCH FERTILIZER SHALL I USE? Tables for converting measures to amounts needed for small plots or single rows. 1963. (L-307) 5¢.
- MUSHROOM GROWING IN THE UNITED STATES. 1963. (F-1875) 10¢.
- MUSKMELONS FOR THE GARDEN. 1962. (L-509) 5¢.
- ORNAMENTAL HEDGES FOR THE CENTRAL GREAT PLAINS. 1958. (F-2019) 15¢.
- ORNAMENTAL HEDGES FOR THE NORTHERN GREAT PLAINS. 1963. (F-2105) 20¢.
- ORNAMENTAL HEDGES FOR THE SOUTHERN GREAT PLAINS. 1953. (F-2055) 15¢.
- ORNAMENTAL SHRUBS FOR THE SOUTHERN GREAT PLAINS. 1963. (F-2025) 20¢.
- ORNAMENTAL WOODY VINES FOR THE SOUTHERN GREAT PLAINS. 1950. (F-2015) 10¢.
- PLANT HARDINESS ZONE MAP. Locations where 100 ornamental shrubs and trees will succeed. 1960. (M-814) FOR SALE ONLY. 15¢.
- POISON-IVY, POISON-OAK, AND POISON SUMAC. Identification, means of eradication, treatment aids. 1963. (F-1972) 15¢.
- PRUNING SHADE TREES AND REPAIRING THEIR INJURIES. How to do it. 1962. (G-83) 10¢.
- ROSES FOR THE HOME. 1963. (G-25) 15¢.
- RHUBARB PRODUCTION—OUTDOORS AND IN. 1963. (L-354) 5¢.
- SELECTING FERTILIZERS FOR LAWNS AND GARDENS. 1963. (G-89) 5¢.
- SPRING-FLOWERING BULBS. 1958. (L-439) 5¢.
- SOIL CONSERVATION AT HOME. Advice on soils, landscaping, lawns, gardens. 1963. (AB-244) 20¢.
- SUBURBAN AND FARM VEGETABLE GARDENS. Planning, planting, and care of a fairly large country garden. 1964. (G-9) FOR SALE ONLY. 25¢.
- TREES. (1949 Yearbook of Agriculture.) Extensive treatment of subject. FOR SALE ONLY. \$2.75.
- THE USE OF SAWDUST FOR MULCHES AND SOIL IMPROVEMENT. How to do it. 1951. (Circular 891) FOR SALE ONLY. 15¢.
- WINDBREAKS IN CONSERVATION FARMING. 1958. (M-759) 20¢.
- WHY FRUIT TREES FAIL TO BEAR. What to do about it. 1958. (L-172) 5¢.

RECREATION



National Forests—Wilderness Areas

There is a National Forest—sometimes several—within a day's drive of practically any point in the continental United States.

You can picnic, camp, fish, hunt, hike, or take a scenic drive in any of the 154 National Forests. Most offer swimming and boating, too. If you really want to get away from it all, you can hike, ride a horse, or paddle a canoe into any of 84 wild, wilderness, or primitive areas mostly in the Cascades, Rockies, and Sierra Nevada of the West. And you can find numerous ski runs.

A number of USDA bulletins offer advice on use of the National Forests for camping, hiking, and backpacking. "National Forest Vacations" lists all of the forests, their locations, and the facilities available in them.

You don't need reservations to camp at a National Forest—it's first come, first served. The season usually runs from May 30 through Labor Day—at some places in milder climates it's longer. No charge is made at most National Forests—a small fee is charged at some with special service and equipment.

Fires may be built at regular campgrounds and other designated sites without a permit, except in California. Before entering back country or wilderness areas, check with Forest Rangers for permit requirements.

For general information about the recreation resources in a region, contact the USDA Regional Forester, at one of the following addresses:

1. Federal Building, Missoula, Mont., 59801
2. Denver Federal Center, Building 85, Denver, Colo., 80225
3. New Federal Building, 517 Gold Street SW., Albuquerque, N. Mex., 87101
4. Forest Service Building, Ogden, Utah, 84403
5. 630 Sansome Street, San Francisco, Calif., 94111
6. 729 N.E. Oregon Street, Post Office Box 4137, Portland, Oreg., 97208
7. 6816 Market Street, Upper Darby, Pa., 19082
8. 50 Seventh Street, Atlanta, Ga., 30323
9. 710 North 6th Street, Milwaukee, Wis., 53203
10. State Capitol Bldg., Box 1631, Juneau, Alaska.



Farm Vacations



Many farmers these days are answering the call of the public for more campsites and picnic areas. Under authority from the Congress, USDA is helping them with loans, technical aid, and, in some cases, cost-sharing.

This should make it easier for you, if you live in a city, to find uncrowded picnic accommodations and campsites convenient for weekend outings.

Some places with farm ponds, or adjacent to streams and lakes, offer swimming, fishing, and boating as well. Some offer winter sports, hunting, and horseback riding. Some are adjacent to choice public recreation areas.

Many of these places are excellent for extended vacations—and some have become "vacation farms." Some ranches in the West, less pretentious than the elaborate "dude" ranches, offer similar vacation opportunities. A growing number of "dude" ranches is springing up in the East.

Fees at all such privately owned places generally depend on accommodations offered.

How do you find these places? Many are advertised—try the classified ads section of newspapers and magazines and yellow pages of telephone directories. Travel bureaus, auto clubs, and chambers of commerce may have lists. The local offices of the Cooperative State Extension Service, U.S. Soil Conservation Service, and the Agricultural Stabilization and Conservation Service can advise you.

Community Projects

You and your neighbors can make new opportunities for outdoor recreation through community projects of many kinds.

Small watershed projects enable city and rural people to work together for mutual benefit. Recreation can be one of the major purposes of these projects—and the Federal Government can pay up to half the cost. Pools formed behind small watershed dams provide a wide variety of recreation opportunities. Civic clubs and municipalities have developed many splendid camping areas, picnic grounds, and other facilities on the shores of watershed-project lakes.

Rural-urban projects also can adapt farmlands and open tracts around cities and suburbs to recreation use. Cropland and pastures can be planted to grass and converted to golf courses and sports areas. Or they can be planted to trees to provide shade for camping and pic-



Hunters and fishermen know that most of the wildlife available for hunting and much good fishing is on private farms and timber woodlands where conservation practices have been installed. Look for stripcropped fields, shrubs and trees bordering fields, fenced woodlands, and farm ponds. Most farmers stock their ponds with fish. Many farms raise game birds for hunting.

nick. Ponds and small lakes can be built. Choice scenic and natural areas can be reserved for nature centers, parks, or bridle paths. USDA can give technical and credit assistance to such projects. Consult local or State offices of USDA's Soil Conservation Service or Farmers Home Administration.

Hobbies

Are you a potential horse owner? Collector of insects? Raiser of rabbits, guinea pigs, hamsters, mice, squabs?

USDA bulletins on these subjects offer expert advice on selection, care, and breeding. Some also discuss the business opportunities such hobbies may provide. In general, they advise, don't expect to make much money.

"Part-time Farming" (F-2178) is recommended reading if you are thinking of buying that place in the country and getting a little extra income from it. Again, opportunity is limited.

You can get advice on building farm ponds and raising fish in them, too. See list of publications that follows.

Bulletins on gardening and home-improvement projects are listed in the sections pertaining to those subjects.

More Information

- AUTUMN OLIVE FOR WILDLIFE AND OTHER CONSERVATION USES. Attract^s quail, ruffed grouse, and ringnecked pheasants. 1959. (L-458) 5¢.
- BACKPACKING IN THE NATIONAL FOREST WILDERNESS. A Family Adventure. How to do it. Tips on equipment. List of wilderness areas. 1963. (PA-585) 15¢.
- CAMPSTOVES AND FIREPLACES. Many drawings, plans, of different types. Instructions on construction. 1937. FOR SALE. 50¢. (unnumbered).
- CAMPING. The National Forests . . . America's Playgrounds. General information about scenic wonders. 1962. (PA-502) 20¢.
- COLLECTION AND PRESERVATION OF INSECTS. How to do it. 1948. (M-601) FOR SALE ONLY. 20¢.
- FOREST RECREATION FOR PROFIT. Steps to take in converting woodland into campgrounds and picnic areas. Layouts. 1962. (AB-265) 25¢.
- HAMSTER RAISING. Feeding, housing, breeding. 1960. (L-250) 5¢.
- HOME TANNING OF LEATHER AND SMALL FUR SKINS. 1954. (F-1334) 15¢.
- LIGHT HORSES. Selecting, breeding, care of saddle horses. 1962. (F-2127) 20¢.
- MAKE YOUR FARM POND SAFE . . . PREVENT DROWNINGS. 1961. (PA-396) FROM USDA ONLY.
- MANAGING FARM FISHPONDS FOR BASS AND BLUEGILLS. 1955. (F-2094) 15¢.
- NATIONAL FOREST VACATIONS. 1960. (unnumbered) 30¢.
- RECREATION IN SMALL WATERSHED PROJECTS. Outlines possibilities. 1964. (PA-610) 10¢.
- PART-TIME FARMING. Advantages, disadvantages. Income possibilities. 1961. (F-2178) 10¢.
- RAISING GUINEA PIGS. As business or hobby. 1962. (L-466) 5¢.
- RAISING MICE AND RATS FOR LABORATORY USE. Can be science project or hobby. 1961. (L-483) 5¢.
- RAISING RABBITS. Complete guide. 1961. (F-2131) SALE. 20¢.
- ROPE ON THE FARM. How to splice, tie hitches and knots. Care and use. 1959. (F-2130) 10¢.
- RURAL RECREATION. New opportunities on private land. Describes possibilities, what to look for. 1963. (M-930) 20¢.
- SAFE USE AND STORAGE OF FLAMMABLE LIQUIDS AND GASES ON THE FARM. Sportsmen also can follow recommended precautions on use of gasoline, kerosene, LP gas. 1961. (F-2156) 10¢.
- SKIING . . . THE NATIONAL FORESTS. General information about ski areas in the National Forests. 1963. (PA-525) FOR SALE ONLY. 15¢.
- SOIL CONSERVATION TIPS FOR SPORTSMEN. Where the game and fish are. 1959. (PA-400) FROM USDA ONLY.
- SPORTSMAN'S STAKE IN AGRICULTURAL CONSERVATION. How farmers increase fishing and hunting opportunities. How to tell a good farm location for wildlife and fish. Many pictures. 1963. (PA-603) FROM USDA ONLY.
- SQUAB RAISING. Suitable breeds, breeding methods, feeding, management. 1963. (F-684) 15¢.
- TROUT IN FARM AND RANCH PONDS. Fast-running water not required. 1961. (F-2154) 10¢.
- WILDERNESS. The National Forests . . . America's Playgrounds. General information on wilderness areas. 1963. (PA-459) 20¢.
- WORKING DRAWINGS OF BASIC FACILITIES FOR CAMPGROUND DEVELOPMENT. 1962. (AB-264) FOR SALE ONLY. 20¢.

FAMILY FINANCES



Many USDA services and publications are designed to help you get the most for your money. Some of these have been discussed in this bulletin. There are also several publications which deal with managing family finances, how to figure credit charges (and get the best deal), and other matters of financial interest.

Most experts on household finance advise a written spending and saving plan—you don't have to call it a budget. This helps you to visualize goals, current and anticipated expenses—and adjustments that may be needed. Here's a plan you could work from:

Item	Amount per month (week, other)
Set-asides for:	
Future goals and emergencies	\$ _____
Seasonal and large irregular needs this year:	
	Dates needed
Taxes	\$ _____
Insurance premiums	_____
School expense	_____
Special wishes	_____
Other	_____
Total	_____
Debt reduction	_____
Regular monthly or periodic obligations:	
Rent or mortgage payment .	\$ _____
Utilities	_____
Installment payments	_____
Other	_____
Total	_____
Day-to-day needs:	
Food	\$ _____
Household transportation ..	_____
Personal allowances	_____
Other	_____
Total	_____
Extras	_____
Total	_____



Consumer Credit



Consumer credit is a service with a price that should be examined carefully. Many people don't know what they pay for credit. Rates vary considerably from dealer to dealer, with the size of the purchase, with the credit reputation of the buyer, with the length of the loan period—even with the laws of the particular State.

Instead of buying on an installment plan, it is often possible to borrow money at a credit union, bank, or elsewhere at cheaper rates, pay cash for the purchase, and repay the money faster than would be possible under the contract offered by the dealer.

An understanding of how to figure interest costs and rates could save you many dollars over a period of years.

Use this formula to figure *true annual interest rate*, when you consider buying on a monthly installment plan:

$$R = \frac{24C}{B(N+1)}$$

R = Annual true interest rate

B = Amount of credit received

C = Total finance charge or interest

N = Number of monthly payments

Example: An appliance costs \$300 cash, or can be bought for \$50 down and 5 monthly payments of \$52 each. The total cost on time is, of course, \$310. The interest cost, then, would be \$10. Though the additional \$10 is only 3½ percent of \$300—the true annual interest rate is 16 percent.

Figure it like this: Your "C" (interest) is \$10; "B" (amount of credit received) is \$250 (price, less down-payment); "N" (number of payments) is 5. Substitute these figures for the letters in the formula:

$$R = \frac{24 \times 10}{250(5+1)} \text{ or } R = \frac{240}{250 \times 6};$$

$$\text{then, } R = \frac{240}{1500} \text{ or } R = 0.16 \text{ (16 percent)}$$

You can use the same formula to figure interest rate when you borrow money on a monthly repayment plan.

Suppose you borrow \$600 from a finance company to buy a used car. The loan is repaid in 10 monthly installments of \$65 each. The total repaid is \$650, of which \$50 is the interest and finance cost. C would be \$50, B would be \$600, and N would be 10. Interest rate would be 0.18 or 18 percent.

Planning for Large Purchases

Planning ahead—and saving for—major purchases can help you avoid unnecessary use of credit.

Here are average “life expectancies” for a number of household items (these are for items purchased new; one owner):

	Years
Electric refrigerators	16
Electric freezers	15
Ranges, gas or electric	16
Washing machines:	
Automatic and semiautomatic	11
Wringer and spin dryer	10
Automobiles	6
Vacuum cleaners:	
Upright	18
Tank	15
Wool living room rugs	14
Electric sewing machines	24
Automatic toasters	15
Televisions	11

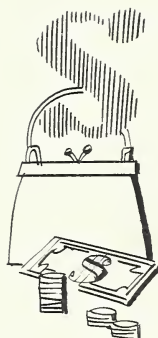
Mortgage Loans

The larger your downpayment when buying a house, and the shorter the term of the mortgage loan, the less it will cost you in the long run—a fact worth considering.

For instance, a \$15,000 mortgage at 6 percent, paid for over *15 years*, will cost (in interest) about *half* the amount of the original loan (\$7,544). But with a *25-year* mortgage, the interest amounts to *nine-tenths* of the original loan—\$13,557.

You can't always take advantage of this saving, of course, but it's wise to make sure that your mortgage contract provides for payments as large as you can afford at the present time, with the right to repay the loan at a faster rate than originally agreed upon. Mortgages guaranteed by the Veterans Administration must include this provision, and without penalty.

The Farmers Home Administration, a USDA agency, makes housing loans to rural residents (those living in open country or in communities of under 2,500 population) who cannot get adequate credit from other sources at reasonable rates and terms. Loans also are made to builders and others to finance construction of rental housing for elderly rural residents.



You should apply for housing loans at a local office of the Farmers Home Administration, generally located at county-seat towns. Borrowers must agree to refinance their loans with other lenders when they can.

Local offices will also help to determine your credit needs, work out debt repayment schedules, and help you solve other financial management problems, even if you are not eligible for a housing loan.

In addition, rural residents not having an adequate supply of safe water can contact their county Farmers Home Administration office to find out about loans this agency makes to groups to develop water supply systems for household use.

More Information

Some of these bulletins were written for farmers—but they contain information useful to any one. You can also get budgeting help from Extension Service home economists and home demonstration agents.

FARMERS HOME ADMINISTRATION IN BRIEF. Describes types of loans available: housing, watershed, Rural Areas Development, water supply system (to nonprofit associations), etc. General information. 1963. (PA-547) FROM USDA ONLY.

FARMERS' HANDBOOK OF FINANCIAL CALCULATIONS AND PHYSICAL MEASUREMENTS. How to figure interest rates, social security benefits and retirement income, how to plan life insurance and savings programs. 1962. (AH-230) FOR SALE ONLY. 35¢.

HELPING FAMILIES MANAGE THEIR FINANCES. Steps families may follow and some of the things they may consider in planning spending. 1963. (HERR-21) FOR SALE ONLY. 40¢.

INSURANCE FACTS FOR FARMERS. Describes types of coverage provided in various contracts, kinds of insurance. 1963. (F-2137) 10¢.

WHAT YOUNG FARM FAMILIES SHOULD KNOW ABOUT CREDIT. Benefits and risks of credit, kinds of loans, figuring interest rates. 1959. (F-2135) 10¢.



EMERGENCIES

How well are you prepared to meet an emergency? You probably carry insurance of various kinds, but you also need a plan to protect yourself and your family in event of enemy attack.

Local governments, in cooperation with State and Federal agencies, including USDA, are planning measures for community and national survival and recovery. USDA is encouraging farmers, the food industry, and people everywhere to take steps *now* to guard against the hazards of war.

There are some actions only you can take.

You need to know what the dangers are and you need a safe place to go for shelter, stocked with enough food and water to last for at least 2 weeks.

You should know your community and school disaster plans. Some communities have, or will have, public shelters stocked with minimum subsistence supplies of food, water, and medicines.

If you don't have a community shelter you can get to, adequate home shelter is a must—but you can offset the cost by providing for dual use.

USDA engineers have designed two such dual-use shelters—one that can double for a convenient fruit and vegetable storage cellar, another that can also be used as a darkroom for an amateur or professional photographer as well as for storage. Folders describing and illustrating these plans may be obtained from USDA (see listing at end of section) or your county agent. Working drawings can be obtained through your county agent or from the Extension agricultural engineer at most State land-grant colleges or universities.

In addition, designs of eight types of family fallout shelters, including "do-it-yourself" types are presented in the publication "Family Shelter Designs" (H-7), available from your local civil defense office, or by mail from the Office of Civil Defense, Department of Defense, Washington, D.C., 20301. Also available from the same source is "Fallout Protection" (H-6), which presents further information on protective measures you can take.





There are great variations in the amount of protection you would get from radiation in apartments or office buildings, inside your house, in your basement, or in a specially prepared fallout shelter.

In general, you need a mass of material between you and the fallout to shield you from radiation. You'd be safer below ground because there you'd get radiation only from above. In an aboveground frame house you might get half the radiation you'd get outside, while in the basement you might get only one-tenth.

Any kind of material will help, but the heavier it is, the better it will shield you. Dirt that weighs 100 pounds per cubic foot, for instance, will give about three times more protection than wood weighing around 30 pounds per cubic foot.

If there is a civil defense emergency and you have no community or home shelter, go to the safest place you can. This may be the basement of a school, apartment, or office building, a cyclone cellar, a root cellar, or a corner of your home basement. Shield doors, windows, and other openings with dense materials such as concrete blocks, bricks, sandbags, or whatever you have.

Fallout radiation decays rapidly and if there were a nuclear attack, it might be necessary to stay in the shelter only a few days. But in areas of heavy fallout, protection might be needed for two weeks or more. That's why a 2-week supply of food and water is good insurance. It could stand you in good stead, too, in the event of natural disaster—or when for any reason your water or food supply may be disrupted.

Two methods of home food storage for emergencies are recommended:

1. Increase your regular food supply so there will always be a 2-week supply of food for your family in your home. Replace food as it is used.

2. Store and maintain in your fallout shelter or home a special 2-week stockpile of survival foods. Choose foods that will keep for months without refrigeration, require little or no cooking, yet will provide a reasonably well-balanced family diet.

You may find a combination of these two methods best meets your own situation.

For suggestions on kinds and quantities of foods to store, see "Family Food Stockpile for Survival" (G-77). This publication also gives sample meal plans using the stored foods, directions for purifying water, and tips on storage.

You and your family could get along for quite a while without food, but only for a short time without water.

Be prepared; stock a 2-week supply for each member of the family. The minimum you'll need is 7 gallons per person for a 2-week period. You can store it in clean, covered plastic or other nonrusting containers. Inspect these every few months.

If an attack should come, how would you get food supplies after your community shelter or home supply ran out? This is the problem that USDA, as part of its everyday activities, is preparing to meet. USDA defense responsibilities include programs for food production, food management, financial aid, food stockpiling, rural defense information and education, rural fire control, and defense against radiological, chemical, and biological warfare—to mention only a few. A system of USDA State and County Defense Boards has been set up throughout the country to mobilize USDA's manpower and technical capabilities.

In addition, USDA's nationwide food donation operation (to schools and welfare departments) provides a framework for both civil defense and natural disaster food distribution. Under a long-standing USDA policy, donated foods are made available immediately upon request to help feed victims of disasters such as floods and hurricanes.



More Information

Most of these bulletins were prepared for farmers—but they contain much information helpful to city or suburban residents.

DEFENSE AGAINST RADIOACTIVE FALLOUT ON THE FARM. Questions and answers. 1961. (F-2107) FOR SALE ONLY. 10¢.

FARM FALLOUT SHELTER AND STORAGE. PLAN No. 5934. Description, illustration of shelter design. 1962. (M-910) 5¢.

FALLOUT AND YOUR FARM FOOD. How to protect food, feed, and water. 1962. (PA-515) FROM USDA ONLY.

FALLOUT SHELTER FOR SIX PEOPLE. PLAN No. 7166. Includes construction details. 1963. (M-948) 5¢.

FAMILY FOOD STOCKPILE FOR SURVIVAL. 1963. (G-77) 10¢.

RURAL FIRE DEFENSE—YOU CAN SURVIVE. Organizing and preparing to fight fire. 1962. (PA-517) FROM USDA ONLY.

SOIL, CROPS, AND FALLOUT FROM NUCLEAR ATTACK. Reducing soil contamination, safe cultivation. 1962. (PA-514) FROM USDA ONLY.

YOUR FAMILY SURVIVAL PLAN. What you need to survive, supplies, equipment, tips on shelter, food, and water storage; record sheet for family use. 1963. (PA-578) FROM USDA ONLY.

YOUR LIVESTOCK CAN SURVIVE FALLOUT FROM NUCLEAR ATTACK. Steps to take. 1962. (PA-516) FROM USDA ONLY.

WHAT THE U.S. DEPARTMENT OF AGRICULTURE CAN DO WHEN NATURAL DISASTER STRIKES. Feeding the hungry, lending money, other disaster help. 1963. (PA-533) FROM USDA ONLY.

Any mention of commercial names does not constitute an endorsement by the Department of Agriculture.

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